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The Evolving Contribution of Emergency Department Testing Studies: From Risk to Care

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This issue of *AIDS* includes data from HIV serosurveys conducted in the Johns Hopkins Emergency Department (ED) over nearly 3 decades, including data from 2013 that have not previously been published (ref Kelen 2015). The earliest of the serosurveys, conducted in 1986 and 1987, aimed to document prevalence of HIV infection, with an eye toward quantifying occupational risk for health care providers [1, 2]. These early studies demonstrated the need for universal infection control precautions. A follow-up study in 1988 aimed to identify trends in HIV prevalence, document adherence to universal precautions implemented in the interim, and assess the burden of HIV-related service use in an emergency setting [3]. Together, these early serosurveys painted a picture of the epidemiology of HIV in an inner-city ED, examining the associations of demographic, risk, and geographic factors with HIV infection. They have also been important in understanding clinical presentations and courses for those patients with both known and unrecognized HIV infection in emergency settings.

Over time, the Johns Hopkins ED-based surveys also documented the emergence of HIV among populations not previously documented to be at risk, such as persons with heterosexual risk [4]. Additionally, the focus of the studies began to shift toward assessing feasibility of ED testing and identifying factors that could be used to prioritize groups for testing in ED settings [4]. Soon after, in 1993–1995, the Johns Hopkins ED instituted a routine HIV testing program. Since that time, many other EDs have followed suit, contributing to our understanding of the picture of HIV in diverse settings across the country [5].

Recently, with a study conducted during 2007, the Johns Hopkins group explored the HIV care continuum for HIV-infected patients encountered in the ED [6]. That work has been extended in the current publication, which describes the HIV care continuum for patients encountered in the Johns Hopkins ED during 2013 in the context of data from the previous studies dating from 1987 to 2007 (ref Kelen 2015). The study, which includes data on a variety of measures, including HIV prevalence, incidence, proportion undiagnosed, linkage to HIV care, antiretroviral use, and viral suppression, provides a detailed picture of how the role of the Johns Hopkins ED has changed through the years.

It is worth noting that the Johns Hopkins HIV testing studies have some important limitations – the results can only be extrapolated to persons who visit the ED, and there are limitations with respect to ability to deduplicate records for persons with multiple ED visits during the study period. Additionally, the data are not comprehensive – they do not capture care received elsewhere. Ultimately, generalizable data regarding the HIV care continuum for HIV-infected persons in the United States are best sought through analyses of HIV surveillance data, including those from the National HIV Surveillance System and the Medical Monitoring Project [7, 8].

Still, ED studies have provided a snapshot of HIV care for a subset of urban, underserved persons living with HIV infection in a particular geographic area. In a sense, the ED-based studies represent a microcosm of the evolution of HIV prevention. In the 1980s, little was known and there was fear among both health care providers and the general public that they might be at risk of acquiring HIV. As time passed and treatments improved, HIV prevention shifted toward testing and awareness of infection. With these most recent manuscripts, the Johns Hopkins ED testing program has shifted focus, in tandem with the goals of the National HIV/AIDS Strategy,[1] to focus on care and reducing onward transmission.

This type of unlinked anonymous serosurvey played an important role for surveillance in the early HIV epidemic, when not all states required reporting of HIV infection and, therefore, data on prevalence were not widely available. However, since that time, surveillance data have improved dramatically and treatment has become available, with the benefits to both individual and public health ever more well-documented. Although all of the Johns Hopkins serosurveys were approved by the Johns Hopkins University School of Medicine Institutional Review Board, many have argued that unlinked HIV serosurveys, which do not provide results back to the individuals tested, are no longer ethical [9]. The Centers for Disease Control and Prevention ceased conducting unlinked serosurveys within the United States in the mid-1990s, and their use in global settings has become increasingly unsupported.

For more than 25 years, the Johns Hopkins ED HIV testing studies have helped us to understand the burden of HIV in inner-city Baltimore. The Johns Hopkins ED HIV testing program has served as a model for other ED HIV testing programs. Although the time has likely come to dispense with unlinked serosurveys, it can be expected that we will continue to learn from the experiences of the Johns Hopkins ED routine testing programs for many years to come.

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[1]For more information, see //www.aids.gov/federal-resources/national-hiv-aids-strategy/overview/.

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